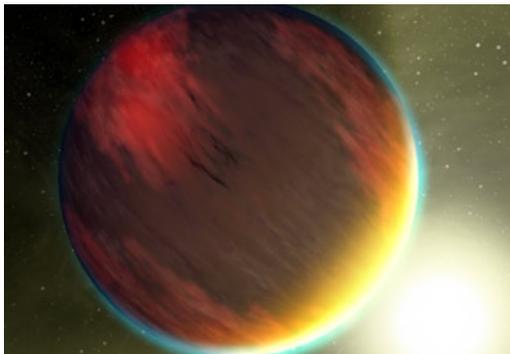


NASA Weekly Update

Week of February 20 - 26, 2007

Feb 27: NASA Reception Featuring Crew of STS-116: NASA invites you to experience The Vision for Space Exploration: From Vision to Reality featuring an evening with the crew of STS-116, whose mission to the International Space Station concluded on December 22, 2006. The reception is from 5:00 PM to 8:00 PM in 138 Dirksen Senate Office Building and is open to the public. For more info or to RSVP, contact Joshua Buck at jbuck@nasa.gov or 202-358-1130.

Feb 21: NASA's Spitzer First to Crack Open Light of Far Away Worlds: NASA's Spitzer Space Telescope has captured for the first time enough light from planets outside our solar system, known as



This artist's concept shows a cloudy Jupiter-like planet that orbits very close to its fiery hot star.

exoplanets, to identify signatures of molecules in their atmospheres. The landmark achievement is a significant step toward being able to detect life on rocky exoplanets and comes years before astronomers had anticipated. Just as a prism disperses sunlight into a rainbow, Spitzer uses an instrument called a spectrograph to reveal a spectrum by splitting light from an object into different wavelengths. The process uncovers "fingerprints" of chemicals making up the object. The exoplanets Spitzer observed are known as "hot Jupiters" because they are gaseous like Jupiter

but orbit much closer to their stars. For artist's concepts and more information on the Web, visit: <http://www.nasa.gov/spitzer>.

Feb 26: NASA and Department of Defense Partner for Aeronautical Testing: NASA and the Department of Defense recently signed an agreement to develop an integrated national strategy for managing their respective aeronautical test facilities. NASA Administrator Michael Griffin and Under Secretary of Defense for Acquisition, Technology and Logistics Kenneth Krieg signed the National Partnership for Aeronautical Testing (NPAT) agreement. The agreement expands the dialogue beyond the test and evaluation communities to include industry, academia and the science and technology interests from both agencies. Aeronautical test facilities are used for testing vehicles (e.g., aircraft, missiles or space vehicles) or for related scientific and engineering studies. They include wind tunnels, propulsion test facilities, simulation facilities and open-air ranges. For more information about NASA's aeronautics program, visit: <http://www.aeronautics.nasa.gov>.

Feb 23: NASA Awards Turbine Pump Assembly Contract for Ares I: NASA has selected Hamilton Sundstrand Space Systems International Inc. of Rockford, Ill., to design, develop, fabricate, test and deliver engineering models of a turbine pump assembly for the Ares I upper stage thrust vector control subsystem. The cost-plus-fixed-fee contract - a competitive award - has a two-year period of performance with a maximum value of \$5,009,388. NASA's Glenn Research Center is the agency's lead for the Ares I upper stage thrust vector control subsystem, part of NASA's Constellation Program. For more information on the Web about Glenn's roles and responsibilities for Ares I, visit: <http://exploration.grc.nasa.gov/Exploration/Constellation/Launch>. For more information on the Web about NASA's Constellation Program, visit: <http://www.nasa.gov/constellation>.

Feb 23: NASA Issues Ares I Upper Stage

Production Request for Proposal: Friday NASA issued a request for proposal for the Ares I launch vehicle upper stage element. Ares I is the launch vehicle that will transport the Orion crew exploration vehicle and its crew and cargo to low Earth orbit. The upper stage proposals are due to Marshall Space Flight Center no later than 1 p.m. CST April 13, 2007. For more information about the draft request for proposal on the Web, visit: <http://www.exploration.nasa.gov>. For information about NASA's Ares Projects on the Web, visit: <http://www.nasa.gov/ares>.

Feb 21: NASA Provides Additional Information on Agreement with Virgin Galactic: NASA officials signed a memorandum of understanding Tuesday with a U.S. company, Virgin Galactic, LLC, to explore the potential for collaborations on the development of space suits, heat shields for spaceships, hybrid rocket motors and hypersonic vehicles capable of traveling five or more times the speed of sound.

Weekly Status Reports

Atlantis (OV-104)

Mission: STS-117 - 21st International Space Station Flight (13A) - S3/S4 Truss Segment Solar Arrays
Vehicle: Atlantis (OV-104)
Location: Launch Pad 39A
Launch Date: Targeted for March 15, 2007
Launch Pad: 39A
Crew: Sturckow, Archambault, Reilly, Swanson, Forrester and Olivas
Inclination/Orbit Altitude: 51.6 degrees/122 nautical miles

The STS-117 crew arrived at Kennedy Space Center Wednesday to participate in the Terminal Countdown Demonstration Test (TCDT), a launch dress rehearsal. The rehearsal includes emergency egress training at the launch pad and a practice run of the final launch countdown, during which the crew climbs aboard Atlantis and executes the checklist for the final hours of the simulated countdown. Earlier in the week, the STS-117 payload was installed into Atlantis' cargo bay. In addition, technicians continued their preparations for the hypergolic propellant load, scheduled for next week. Shuttle interface testing and validation testing of launch pad systems are underway.

Endeavour (OV-105)

Mission: STS-118 - 22nd International Space Station Flight (13A.1) - S5 Truss Segment
Vehicle: Endeavour (OV-105)
Location: Orbiter Processing Facility Bay 2
Launch Date: Targeted for June 28, 2007
Launch Pad: 39A
Crew: Kelly, Hobaugh, Williams, Morgan, Mastracchio, Caldwell and Anderson
Inclination/Orbit Altitude: 51.6 degrees/122 nautical miles



Expedition 14 Commander Michael Lopez-Alegria and Flight Engineer Mikhail Tyurin performed post-spacewalk cleanup activities Friday. Tasks included returning first-aid kits to their regular stowage locations, recording radiation readings from the spacesuits, closing out and reconfiguring the photo cameras, and downlinking photo imagery from the spacewalk to the ground. Both spacewalkers also tagged up with ground specialists for the standard post-spacewalk debrief.

Lopez-Alegria and Tyurin successfully completed a 6-hour, 18-minute spacewalk Thursday. The excursion from the Pirs docking compartment was conducted in Russian Orlan spacesuits. They were able to retract a stuck antenna on the Progress vehicle docked to the station's Zvezda Service Module. The excursion was the 10th for Lopez-Alegria, a U.S. record, and the fifth for Tyurin.



- **Feb 27 – 28:** NASA Senate Days
- **Feb 29:** New Horizons will make its closest pass to Jupiter on Feb. 28, threading its path through an "aim point" 1.4 million miles (2.3 million kilometers) from the center of Jupiter.
- **NET March 15:** Launch of Space Shuttle Atlantis from Kennedy Space Center.
- **March 19:** Landing of the Expedition 14 crew at Kazakhstan's Baikonur Cosmodrome.
- **NET March:** Launch of the Expedition 15 crew. The crew includes Commander Fyodor Yurchikhin and Flight Engineer Oleg Kotov. Williams will finish her remaining time of her six-month tour of duty on the station as a member of Expedition 15 crew.

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